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## PATENT ABSTRACTS OF JAPAN

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**G09F 9/30**(21) Application number: **03311206**(22) Date of filing: **27.11.91**(71) Applicant: **NEC KAGOSHIMA LTD**(72) Inventor: **TAKAHASHI NORIO****(54) COLOR LIQUID CRYSTAL DISPLAY DEVICE****(57) Abstract:**

**PURPOSE:** To enable the formation of the above device to the standard specified for electromagnetic interference (EMI) by providing a protective panel provided with a transparent conductive film on the front surface of a color liquid crystal panel.

**CONSTITUTION:** A fluorescent tube 5 is disposed on the rear surface of the color liquid crystal panel 1 and further, a light reflection plate 6 is provided on the rear surface of this fluorescent tube 5. A diffusion plate 7 is provided between the fluorescent tube 5 and the color liquid crystal panel 1. The light reflection plate 6 is connected to a shielding plate 8 and the protective panel 9 having the transparent conductive film 10 is provided on the front surface of the color liquid crystal panel 1 to connect a shielding plate 8 and the transparent conductive film 10. The color liquid crystal panel 1 is driven by an LSI 4 of an HIC substrate 3 connected to the color liquid crystal panel 1 to control the quantity of the transmitted light, by which the color liquid crystal display device is operated. Then, the interference radio waves from the color liquid crystal panel 1 are decreased to  $\leq 35\text{dB}\mu\text{V/m}$  and the standard  $40\text{dB}\mu\text{V/m}$  specified for the EMI is

satisfied since the protective panel 9 having the transparent conductive film 10 is provided.

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